ANNUAL REPORT 2025

NSAI TECHNICAL COMMITTEES (NSAI/ETC/TC 16 - ELECTROMAGNETIC COMPATIBILITY)

Contents

1 Chair Statement

I am pleased to note that the NSAI/ETC/TC 16 membership continues to grow which has resulted in a large amount of IEC and CENELEC documents being reviewed by the committee. In particular we have gained significant new members in the area of IEC TC47, on semiconductor devices. This reflects the strong presence in Ireland of semiconductor manufacturers. The committee continues to be strongly supported by Irish manufacturing industry, the regulator, ComReg, and good representation in the relevant CENELEC and IEC committees.

Electromagnetic compatibility (EMC) is becoming ever more critical in ensuring that electronic devices operate without causing or being affected by electromagnetic interference (EMI). The rollout of 5G networks and the development of future wireless communication technologies create the need for new standards and testing methods to prevent interference between devices and networks.

Harmonizing EMC standards and regulations across different regions remains a challenge. The Harmonised Standards (HAS) Consultants are rejecting most standards as not being suitable for citation in the EU OJ. Multiple issues are being raised about scopes, test methods, deviations from the generic standards, limits, test arrangements and performance criteria.

European legal problems have been raised with one standard being proposed for both EMCD and RED. It has now been stated that EMC standards must not cover radio equipment, while for the RED, applicable standards must only cover radio equipment.

Meanwhile, the European Commission (EC) has started the process of attempting to delete outdated and withdrawn standards from current cited lists. If there is no new and improved way of timely harmonisation processes being put in place, there will be a considerable gap for harmonised standards – i.e., from deletion of old standards until the time new and state-of-the-art standards get cited in the OJEU. This means that manufacturers will face difficulties in determining compliance with EU directives as they are supposed to adopt harmonised standards. In practice, manufacturers are having to adopt non harmonised standards on the basis they represent the "state of the art".

'Alternative Test Methods' have been adopted in many EMC standards for many years which provides manufacturers with flexibility in demonstrating compliance. The EC is advocating that a single reference method be adopted which poses difficulties for manufacturers that have adopted alternative test chambers. CENELEC TC210 is continuing discussions with the EC on this matter, and it is hoped that common ground can be established. TC 210 has agreed to seek funding for a research project on "Comparison of Alternative Test Methods' to assist in this area. The aim is to define a procedure on the use of alternative test methods for radiated emissions to ensure that each method provides equivalence and adequate protection of radio services.

CENELEC is cooperating with ETSI where possible. Common areas are in areas such as wireless power transfer and wireless charging.

TC210 has requested that the CLC/BT pay special attention in exploring options to find a way forward in achieving more positive assessments which will result in more new Standards for citation. We should note that there were no new EMC standards adopted for publication in the OJEU in 2025 which is highly unsatisfactory.

The importance of these developments for NSAI/ETC/TC16 expert members will ensure continued strong support for the work of the committee.

John McAuley

Chair of NSAI/ETC/TC 16.

2 Introduction

NSAI/ETC/TC 16 focus on standardization related to electromagnetic compatibility across the entire frequency spectrum. Consideration extends to all aspects of the ability of equipment or a system to function satisfactorily in its electromagnetic environment without introducing intolerable electromagnetic disturbances to anything in that environment.

3 Scope of TC

NSAI/ETC/TC 16 prepare European standards in the field of electromagnetic compatibility across the entire frequency spectrum.

Standards are available from www.standards.ie.

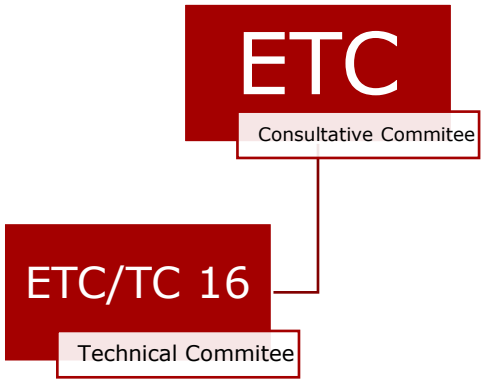
The committee mirrors the following international committees:

CLC/TC 210	Electromagnetic Compatibility (EMC)
CLC/TC 8x	System aspects of electrical energy supply
CLC/TC 47x	Semiconductor devices
CLC/TC 62	Electrical equipment in medical practice
CLC TC 47x	Semiconductor devices
IEC/TC 8	System aspects of electrical energy supply Related to 50160
IEC/TC 47	Semiconductor devices
IEC/TC 62	Medical equipment, software, and systems Related to 60601-1-2
IEC/TC 65	Industrial-process measurement, control and automation Related to 61326
IEC/TC 77	Electromagnetic compatibility
IEC/CISPR	International special committee on radio interference

4 Structure and Membership

4.1 Structure

The Figure below illustrates the structure of the Committee:



4.2 Irish Industry/Sector

NSAI/ETC/TC 16 is made up of manufacturers of electrical and electronic equipment, test houses, consultants, utilities, notified body, regulator, academia and equipment users.

4.3 Members

The committee welcomed 3 new organisations in 2025. ComReg, Qualcomm and HP. The table below provides the committee members for the year 2025:

Organisation	Role
2RN	National committee member
Analog	National committee member
Apple	National committee member
Becton Dickinson	National committee member
Boston Scientific	National committee member
CEI	**National chairperson**
ComReg	National committee member
Dell	National committee member
E.M.T.	National committee member
EirGrid	National committee member
ESBN	National committee member
HP	National committee member
Huawei	National committee member
Independent	National committee member
IRTS	National committee member
NSAI	**National secretary**
Qorvo	National committee member
Qualcomm	National committee member
Siemens	National committee member

5 Summary of 2025 Activities

5.1 National

5.1.1 Meetings

Committee members attended the following virtual National meetings:

Meeting No.	Date	Minutes Reference
1	2025/05/09	N0936
2	2025/12/05	N0969

5.1.2 National Work

The committee held two national committee meetings and attended relevant IEC and CLC TC meetings during 2025. The committee are not developing any national work at present but are actively inputting Irish concerns into IEC & CENELEC development work under the scope of the committee.

5.2 International/Regional

5.2.1 Meetings

Committee Members attended international CENELEC (CLC) and IEC meetings as follows:

Committee Name	Location	Date	No. of Attendees
IEC TC 47/SC47A Heterogeneous ICs	Germany	2025/05/19 – 2025/05/23	1
IEC TC 47/SC47A	Germany	2025/05/19 – 2025/05/23	1

Integrated Circuits - Electronic fuses for low voltage automotive power distribution networks			
IEC TC 47/SC47A Modelling of integrated circuits for behavioural simulation	Germany	2025/05/19 – 2025/05/23	1
IEC TC 47/SC47A Test procedures and measurement methods for EMC in integrated circuits	Germany	2025/05/19 – 2025/05/23	1
IEC TC 47/SC47A Plenary	Germany	2025/05/19 – 2025/05/23	1
IEC TC 47 Plenary	Germany	2025/05/19 – 2025/05/23	1
IEC TC 47 Plenary	Japan	2025/11/17 – 2025/11/21	1
IEC TC 47/SC47A Plenary	Japan	2025/11/17 – 2025/11/21	1
IEC TC 47/SC47A Heterogeneous ICs	Japan	2025/11/17 – 2025/11/21	1
IEC TC 47/SC47A Integrated circuits	Japan	2025/11/17 – 2025/11/21	1
IEC TC 47/SC47A Integrated Circuits - Electronic fuses for low voltage automotive power distribution networks	Japan	2025/11/17 – 2025/11/21	1
IEC TC 47/SC47A Modelling of integrated circuits for behavioural simulation	Japan	2025/11/17 – 2025/11/21	2
IEC TC 47/SC47A Semiconductor devices	Japan	2025/11/17 – 2025/11/21	1
IEC TC 47/SC47A Test procedures and measurement methods for EMC in integrated circuits	Japan	2025/11/17 – 2025/11/21	2
IEC TC 8 System issues regarding integration of wind and PV generation into bulk electrical grid		2025/03/04 – 2025/03/06	1
IEC TC 62 Electromagnetic exposure hazards (not optical or ionizing but including SAR)		2025/03/30 – 2025/04/01	1
IEC TC 62 Electromagnetic disturbances (including wireless coexistence) hazards		2025/04/02 – 2025/04/04	1
IEC TC 62 Electromagnetic exposure hazards (not optical or ionizing but including SAR)		2025/11/03 – 2025/11/14	1
IEC TC 62 Electromagnetic disturbances (including wireless coexistence) hazards		2025/11/03 – 2025/11/14	2
IEC TC 65 Maintenance of IEC 61508-1, -2, -4, -5,-6 and 7		2025/05/19 – 2025/05/21	1
IEC TC 65 Maintenance of IEC 61508-3, -4, -6 and -7		2025/05/22 – 2025/05/23	1
IEC TC 65 Maintenance of IEC 61508-1, -2, -4, -5,-6 and 7		2025/10/13– 2025/10/15	1

IEC TC 65 Maintenance of IEC 61508-3, -4, -6 and -7		2025/10/16– 2025/10/17	1
IEC TC 65 Chair's Advisory Group		2025/10/20 – 2025/10/20	1
CLC TC 210	Brussels	2025/05/13 – 2025/05/14	2
CLC TC 47x		2025/01/25	2
CLC TC 47x		2025/06/04	1
CLC TC 210	Milan	2025/12/09 – 2025/12/10	3
CLC TC 8x		2025/11/26	1

5.2.2 International/Regional Work

Members of the committee attended maintenance teams and working group meetings. The Chair attended virtually the CENELEC TC 210 Plenary meeting in Brussels in May and attended in person in Milan in December. Additional members of the committee attended virtually. The committee members are active in both IEC and CLC plenary meetings and working group meetings and a list of meetings attended by committee members is shown in 5.2.1.

5.2.3 International/Regional Standards Reviewed

The committee continue to review standards as they arise in IEC & CLC.

The committee has been actively attending IEC & CLC meeting in relation to standard within the scope of the committee.

5.2.4 International/Regional Voting Results

NSAI/ETC/TC 16 propose a vote where required for IEC or CENELEC documents, which NSAI submits to the relevant bodies.

The committee have actively voted on 46 documents in 2025 and have submitted 24 sets of comments.

Active votes were broken down as 35 for IEC documents and 11 for CENELEC documents.

CLC/TC 210	Electromagnetic Compatibility (EMC)	Voted 7 times
CLC/TC 8x	System aspects of electrical energy supply	Voted 0 time
CLC/TC 47x	Semiconductors and Trusted Chips Implementation	Voted 4 times
CLC/TC 62	Electrical equipment in medical practice	Voted 0 times
IEC/TC 8	TC 8 Related to 50160	Voted 1 time
IEC/TC 62	TC 62 Related to 60601-1-2	Voted 0 time
IEC/TC 65	TC 65 Related to 61326	Voted 0 time
IEC/TC 47	Semiconductor devices	Voted 2 time
IEC/TC 47A	Integrated circuits	Voted 12 times
IEC/TC 47D	Semiconductor devices packaging	Voted 0 times
IEC/TC 62A	Common aspects of medical equipment, software, and systems	Voted 0 times
IEC/TC 62D	Particular medical equipment, software, and systems	Voted 0 times
IEC/TC 77	Electromagnetic compatibility	Voted 0 times
IEC/TC 77A	EMC - Low frequency phenomena	Voted 2 times
IEC/TC 77B	High frequency phenomena	Voted 1 times
IEC/TC 77C	High power transient phenomena	Voted 1 times
IEC/CISPR	International special committee on radio interference	Voted 3 times

IEC/CIS/A	Radio-interference measurements and statistical methods	Voted 1 time
IEC/CIS/B	Interference relating to industrial, scientific and medical radio-frequency apparatus, to other (heavy) industrial equipment, to overhead power lines, to high voltage equipment and to electric traction	Voted 4 times
IEC/CIS/D	Electromagnetic disturbances related to electric/electronic equipment on vehicles and internal combustion engine powered devices	Voted 1 time
IEC/CIS/F	Interference relating to household appliances tools, lighting equipment and similar apparatus	Voted 4 time
IEC/CIS/H	Limits for the protection of radio services	Voted 2 times
IEC/CIS/I	Electromagnetic compatibility of information technology equipment, multimedia equipment and receiver	Voted 2 time

Body	Vote Reference	Comments Submitted	Decision	WIID
CLC TC 210	FprEN IEC 55012:2025		Approve	79517
CLC TC 210	prEN IEC 55014-1:2025 (frag2)		Approve	80553
CLC TC 210	prEN IEC 55014-1:2025 (frag3)		Approve	80552
CLC TC 210	prEN IEC 55014-1:2025 (frag5)		Approve	80550
CLC TC 210	prEN IEC 55035:2025		Approve	80682
CLC TC 210	prEN IEC 55032:2025		Approve	79520
CLC TC 210	FprEN IEC 61000-6-3:2025		Approve	74848
IEC TC 8	8/1769/Q	Yes	Approve	
CLC TC 47x	prEN IEC 62228-7:2025	Yes	Approve	
CLC TC 47x	prEN IEC 62132-8:2025	Yes	Approve	80329
CLC TC 47x	FprEN IEC 62132-8:2025	Yes	Approve	80329
CLC TC 47x	prEN IEC 55032:2025	Yes	Approve	79520
IEC TC 47/SC 47A	47A/1205/FDIS	No	Approve	
IEC TC 47/SC 47A	47A/1183/CD	Yes	Comments Only	
IEC TC 47/SC 47A	47A/1184/Q	No	Comments Only	
IEC TC 47/SC 47A	47A/1182/CDV	Yes	Approve	
IEC TC 47/SC 47A	47A/1181/NP	Yes	Approve	
IEC TC 47/SC 47A	47A/1180/CDV	Yes	Approve	
IEC TC 47/SC 47A	47A/1185/Q	Yes	Comments Only	
IEC TC 47/SC 47A	47A/1186/CD	Yes	Comments Only	
IEC TC 47/SC 47A	47A/1193/CD	Yes	Comments Only	
IEC TC 47/SC 47A	47A/1194/CD	Yes	Comments Only	
IEC TC 47/SC 47A	47A/1196/CD	Yes	Approve	
IEC TC 47/SC 47A	47A/1196/CD	No	Approve	
IEC TC 47	47/2903/Q	Yes	Approve	
IEC TC 47	47/2916/Q	Yes	Approve	

IEC TC 77/SC 77A	77A/1273/Q	Yes	Comments Only
IEC TC 77/SC 77A	77A/1242/CD		No Comment
IEC TC 77/SC 77C	77C/351/FDIS		Abstain
IEC CIS/A	CIS/A/1486/Q	Yes	Comments Only
IEC CIS/B	CIS/B/862/DC	Yes	Comments Only
IEC CIS/B	CIS/B/857/DC		No Comment
IEC CIS/B	CIS/B/858A/DC		No Comment
IEC CIS/B	CIS/B/859/DC		No Comment
IEC CIS/D	CIS/D/507/FDIS		Approve
IEC CIS/F	CIS/F/888/CDV		Approve
IEC CIS/F	CIS/F/889/CDV		Approve
IEC CIS/F	CIS/F/887/CDV		Approve
IEC CIS/F	CIS/F/911/NP		No Comment
IEC CIS/H	CIS/H/548/Q	Yes	Comments Only
IEC CIS/H	CIS/H/547/FDIS		Approve
IEC CIS/I	CIS/I/686/CD	Yes	Comments Only
IEC CIS/I	CIS/I/700/CDV		Approve
IEC CISPR	CISPR/1561/Q	Yes	Comments Only
IEC CISPR	CISPR/1558A/Q	Yes	Comments Only
IEC CISPR	CISPR/1575/Q	Yes	Comments Only

5.3 Regulatory Development/Update

The committee follow and are aware of the following Directives:

- 2014/30/EU - Electromagnetic Compatibility (EMC).
- 2014/53/EU – Radio Equipment Directive (RED).

6 Irish publications/Reviews

6.1 Publications

The committee did not publish any deliverables this year.

6.2 Reviews

The committee continue to review documents issued by IEC and CENELEC. No Irish publications were reviewed this year.

7 Work programme for 2026 onwards

It is intended to hold at least two committee meetings and to attend the plenary and working group meetings of the relevant TCs during 2026.

The committee continue to monitor both IEC and CLC work and will vote and comment on documents as they arise.

It should be noted that there are 50 work programmes taking place within CLC 210.

The number of work programmes taking place in the relevant IEC committees are listed below:

- IEC TC 77 3 work programmes,
- IEC TC 77A 6 work programmes,
- IEC TC 77B 2 work programmes.
- IEC TC 77C 0 work programmes.
- IEC TC 47A 9 work programmes.
- IEC TC 47D 11 work programmes

8 Additional Information

No additional information.